# Real Estate Department

**Do you want to buy** a farm or businees? If you do you may find just what you need in this department. If you are interested in any of the following proprieties write us at once for owner's name and address. If none of these places suit you, write us at once telling us **what you want and where you want it** and let us introduce you to the man who has the **very property you are looking for.**

We recommend the following properties as being productive and fair in price.

**Do You Want to Sell** your farm or business? **If you want cash** for your property, send price and description at once and let us show you how we bring buyer and seller together.

This department is conducted solely for the purpose of enabling buyers and sellers of farms or business proprieties to make quick sales

**Jno. D. Babbage.**

### Sales $6000 A Year.

A splendid business stand, store house, stock of goods, good will, etc. Annual sales $5000 to $6000 a year. Post office in connection which pays about $120 per year. Three miles from railroad station on the branch. Here is a fine opportunity for a man with a small capital to drop right into a good business. For further particulars write JNO. D. BABBAGE, Cloverport, Ky.

**$3,950** 352 acres on Hardinsburg and Falls of Sinking road, 2 miles from Sample. Improvements, two one-story dwellings, three tobacco barns, hog house and blacksmith shop, all necessary out-houses, 135 acres under cultivation and pasture, 222 acres in timber, white oak, black oak, beech and sugar tree, all good size. Plenty of good water the year round. One-third cash and good easy terms on balance.

**$600** 75 acres, situated 1½ miles from Holt, joins Gabe Pierce. Ridge land in good shape, good fencing, one good dwelling house, 3 rooms, 1 good cistern, 1 barn 30x46 feet, 1 never-failing sprug, two ponds. This is good tobacco, wheat and corn land. 20 acres in timber, white oak, sugar tree and beech, balance cleared. Plenty of good fruit. Good road to Stephensport 2½ miles and good road to Hol 1½ miles. This farm is not worn out; it is good land and in good fix. Just the farm for a man with a small family.

Two room cottage on Murray Avenue. Well located. Rents for $5 per month.

**$1,750** 155 acres on Hardinsburg and Falls of Sinking road, 2 miles from Sample. Improvements, dwelling and a good, big barn. 80 acres in oak and beech timber. The oak timber is good tie timber. Beech never been worked. Timber can be hauled either by water or rail. Limestone land, both bottom and hill. Suitable for tobacco and fruit. Plenty good water year round. Terms, one third cash, balance in easy payments.

FOR SALE—A farm containing 250 acres and all under fence. A nice cottage of five [5] rooms, two cisterns, a walled cellar with a store room over it, two good stock barns; one tenant house; about 500 apple and peach trees, also pears, quinces and apricots; most all kinds of small fruits, including a nice vinyard of choicest grapes; 200 acres cleared, balance in woods 125 acres in grass, several groves of black locust sufficient for posts to wire the whole farm in. It lies near Ekron on L. H. & St. L. R. R. price is $5,000 or long and easy payments.

FOR SALE—A splendid stand for a druggist and physician in a good town surrounded by good, prosperous farmers. This is just the place for some young physician to step into a good practice and a good drug business. An old established physician wants to retire is the reason for selling. For further particulars address JNO. D. BABBAGE, Cloverport, Ky.



# Read Our Story

# Making Money On the Farm

## II.—Maintaining Fertility

By C. V. GREGORY,
Author of "Home Course In Modern Agriculture"



NOT all lands need tile drainage, but there are none on which the problem of maintaining fertility is not an important one. Fertility of the land in its broadest sense means its ability to produce large crops.

One of the important factors influencing fertility is the amount of plant food in the soil. Ten elements, carbon, hydrogen, oxygen, calcium, magnesium, iron, sulphur, nitrogen, potassium and phosphorus, are necessary to the growth of plants. From 90 to 95 per cent of the dry matter of plants is made up of carbon, oxygen and hydrogen, which are obtained from air and water. Of the others only three, nitrogen, phosphorus and potassium, are used in such large quantities that the supply in the soil is likely to become exhausted. These three are usually spoken of as the essential plant foods.

### Amount of Plant Food In Soils.

These plant foods are present in varying amounts in all soils. In many cases it is necessary to increase the supply by the use of commercial fertilizers. The real need of most soils, however, is not the addition of more of these materials, but the judicious use of those already there. It is estimated that there is enough phosphorus in the upper seven inches of soil in the Mississippi valley to raise a hundred bushels of corn to the acre every year for sixty years and enough potassium to last 600 years at the same rate. Much of this phosphorus and potassium is combined with other materials in such a form that it is unavailable for the use of the plants. One of the principal problems of the farmer, then, is to make this stored fertility available.

One of the most effective means of doing this is by keeping the soil plentifully supplied with humus. Humus is the name given to decaying organic matter in the soil. It is the humus that gives the dark, rich color to soils. It leaves that "brown streak in the furrow" that farmers have long regarded as an indication of fertility. Humus gives the soil a spongy texture and greatly increases its water holding capacity. It also makes the soil lighter and warmer. Soils which contain large amounts of humus do not bake or become cloddy easily. They are mellow and respond readily to cultivation. Humus contains considerable nitrogen and furnishes a home for bacteria, which aid in making plant food available. Certain acids are also formed in the decaying of humus that aid in making the phosphorus and potassium available. It might almost be said that the chief problem of maintaining fertility is the problem of keeping the soil supplied with humus.

### Maintaining the Humus Supply.

Probably the best way of maintaining this humus supply is by the liberal use of barnyard manure. The surplus straw should be used for bedding, so as to save all the liquid portion and add to the bulk of the manure. Shredded fodder is also good for this purpose. The manure should be hauled

FIG. III—ACCUMULATION OF MANURE.

to the land as fast as formed. When it is allowed to decay in the barnyard much of the nitrogen is lost, and rains falling upon it also wash out other elements. The manure spreader is an implement that should be found in every barnyard. The manure can be loaded direct from the stables to the spreader at almost all seasons of the year and spread in an even layer upon the field. With a spreader the manure can be made to cover twice as much ground, so that the whole farm can be gone over oftener.

While barnyard manure is undoubtedly one of the best means of maintaining fertility, it cannot always be had. Many farmers, because of their location near markets which demand certain crops, find it more profitable to supply those crops than to raise live stock. Others prefer grain farming because it is less confining. Such farmers must have some method of maintaining fertility which does not depend primarily upon manure.

### The Value of Clover.

The best substitute for manure is clover. Clover supplies an abundance of nitrogen, the most rapidly used of the three essential elements. Three-fourths of the air is made up of nitrogen. Clover and other leguminous crops are able to get nitrogen from this source by means of bacteria which live on their roots. These bacteria change the nitrogen of the air into nitrates, a form in which it can be used by the plants. Fully one-third of the nitrogen collected by the clover plant is left in the soil in the roots and stubble. One crop of clover in a four year rotation will furnish nearly enough nitrogen for the remaining three crops in the rotation.

This is a much cheaper form of obtaining nitrogen than by purchasing it in commercial fertilizers at 10 to 15 cents a pound. It is much more profitable to keep the nitrogen supply fairly constant by the continued use of a rotation with legumes than to add a large amount at one time. Nitrogen in the form of nitrates is readily soluble, and every rain washes some of it out of the soil. This is not true of the other essential elements to any marked extent. Too liberal a supply of nitrogen at one time tends also to promote too rapid leaf growth at the expense of fruit or grain.

The stubble and roots of the clover, together with the cornstalks and other rubbish, will do a great deal to keep up the humus supply. In addition to

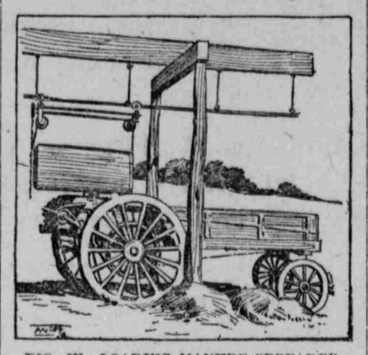

FIG. IV—LOADING MANURE SPREADER.

this, if no manure at all is available, some humus may have to be supplied from some other source. This is especially true if the soil is naturally poor in humus. One of the simplest ways to supply this is by green manuring. This means the turning under of a green crop, such as clover, cowpeas or some other legume. This supplies both humus and nitrogen. The best time to plow under such a crop is in the fall, so that it will have time to decay before spring. A large mass of undecayed material plowed under in the spring checks the upward movement of moisture and is liable to make the land sour.

Another method of adding to the humus supply is by mowing a crop of clover about haying time and letting it lie on the ground. The second crop can be cut in the same way or used for fall feed or for seed.

### "Clover Sick" Soil.

After clover has been grown for a considerable length of time, especially if much has been plowed under for green manure, the land is liable to become "clover sick." This is caused by an excess of acid in the soil. This acid can be neutralized by the application of ground limestone. Caustic or quicklime is not so good as limestone, since it burns up large quantities of humus and in general is too violent in its action. Lime has another advantage on clay soils in that it causes the particles to adhere together in larger masses, thus making the soil more porous. The usual rate of application is from twenty to forty bushels to the acre. With the application of lime, as well as with the adoption of any other new method, it is best to try it on a small scale first. Then if it proves profitable its use can be extended.

The judicious use of clover or some other legume will effectively solve the humus and nitrogen problems. There remains the question of the potassium and phosphorus supply. Clover also aids with these. The humus formed from it helps to dissolve the unavailable materials and prepare them for the use of the plant. As stated before, there is enough potassium in the upper seven inches of the average prairie soil to last 600 years under the most intensive culture and enough phosphorus for fifty years. Clover changes this seven inches into twice as many feet. Clover roots go down ten or a dozen feet or farther. Alfalfa roots go down twenty feet or more. These deep roots bring up minerals from the lower layers of soil and leave them where the shallower rooted grain crops can get them.

### Making Fertility Available.

Gypsum, or land plaster, has a considerable effect in making potassium and phosphorus available. Applied at the rate of 500 or 600 pounds per acre, it will often increase crop yields considerably. It also has a beneficial effect on alkali soils. Use one or two bushels to the acre.

Probably the most effective way of making phosphorus, potassium or other plant foods available is by tillage. Frequent and thorough cultivation, keeping the soil fine and mellow, favors the chemical processes by which locked up plant food is made available.

It must be remembered, however, that the faster these materials are liberated the sooner will the supply become exhausted. When rotation with legumes, tillage and the application of lime and gypsum no longer produce satisfactory results it is a sign that there is a lack of potassium or phosphorus, or both, in the soil. Phosphorus is more liable to become scanty in amount since the supply is smaller. Bonemeal and ground phosphate rock are the best forms in which to apply this material. The former is quicker in its action, but considerably more expensive. Potassium is usually bought in the form of muriate or sulphate.

# AID FOR ROCK ROADS

## Native Limestones to Be Tested at Kansas University.

## BY ENGINEERING DEPARTMENT

**Counties and Towns May Have the Benefit For the Asking—Materials and Methods Found That Will Make Macadam Last Indefinitely.**

The engineering department of the University of Kansas has decided to join the good roads movement. From now on it will be equipped to give the benefit of its testing laboratories to the counties and cities in the state of Kansas on road materials and methods. A bulletin will be published soon by the department giving the standard tests on more than 200 samples of limestone from the eastern half of the state. The regents established a testing station at Lawrence about a year ago, but up to this time there have been no funds to publish the results of the tests that have been made. The tests in the first bulletin are of stones available for macadamizing, of which there is practically an unlimited amount.

In 1905 Professor W. C. Hoad, who has charge of the work, had two senior students begin an investigation of the value of Kansas limestones for road-making, and they tested nearly a hundred samples. In the following year two more students, Edward N Noyes and D. C. McConaughy, carried on the tests. Last year more tests were made from time to time until the department has a good idea of what limestones will make macadam roads. There is a wonderful difference in them, some being practically worthless, while others—and they are in the majority—are first class material.

Two tests are applied, one to determine the toughness and wearing qualities of the stones and the other to determine the cementing properties of the powder that is made by the road roller and the wear of traffic. It sometimes happens that a stone that is good in one respect is worthless on account of the lack of the other quality. Wearing qualities are determined by the standard "rattler" test, which was originated in France thirty years ago. The samples of some are broken into uniform pieces, so that fifty will weigh approximately eleven pounds. They are put into a "rattler," which consists of an iron cylinder, set at an angle of thirty degrees with the axis of rotation. In the test, lasting five hours, the cylinder is rotated 100,000 times, and the amount ground off the samples in that time by weight determines the measure of wearing quality of the stones. In making the cement test the powder is taken from the "rattler" and mixed with water. It is allowed to harden in cylindrical briquettes and is tested for its resistance under the trip hammer.

"We expect to be able to make tests from now on for any town or county that has a macadamizing project under way," said Professor Hoad, "and I believe the work will be a great thing for the good roads movement in the state. There are any amount of limestones which, if properly selected and put on the roads, will make roads that last indefinitely."

There are only six other testing stations in the United States that are equipped for the tests now being made at the university. The only other one west of Ohio is at the Iowa Agricultural college.—Kansas City Star.

### Women Who Are Envied.

Those attractive women who are lovely in face, form and temper are the envy of many, who might be like them. A weak, sickly woman will be nervous and irritable. Constipation or Kidney poisons show in pimples, blotches, skin eruptions and a wretched complexion. For all such, Electric Bitters work wonders. They regulate Stomach, Liver and Kidneys, purify the blood; give strong nerves, bright eyes, pure breat, smooth, velvety skin, lovely complex on. Many charming women owe their health and beauty to them. 50c at Severs Drug Co.

### Ornament For Girl's Coiffure.

There is quite a fashion for wearing a wide triple bow of soft satin or silver or gilt gauze in the hair. This sketch shows just how this is adjusted. The double fillet is of thin silver

ORNAMENT FOR GIRL'S COIFFURE.

and goes half way round the head, bringing the triple bow of silver gauze at the side of the head back of the ear. This is a very pretty ornament and is usually most becoming to any girlish face.

### Trouble Makers Ousted.

When a sufferer from stomach trouble takes Dr. King's New Life Pills he's mighty glad to see his Dyspepsia and Indigestion fly, but more, he's tickled over his new fine appetite, strong nerves healthy vigor, all because stomach, liver and kidneys now work right. 25c at Severs Drug Co.

### Teeth Chatter.

The Gold Tooth—Say, you'll be pulled if you keep on disturbing the peace.

The Troublesome Molar — Hooray! I'm just aching to get out of here, you know.—Puck.









### L. H. & ST L. TIME TABLE

EAST BOUND.

No. 146, Daily Fast Train leaves Cloverport 5:07 A. M. stops at Irvington, West Point, Stites and Medora only, arrive at Louisville 7:25 A. M.

No. 142 Daily, Mail and Express, leaves Cloverport 10:07 A. M. stops at all way stations arrives Louisville 12:58 p. m

Train No. 144. Daily, fast mail, leaves Cloverport 4:58 p. m., stops at all way stations, east of Cloverport except Mystic, arrives at Louisville 7:40 p. m.

Train No. 148. Daily, Cloverport accommodation arrives Cloverport 8:16 p. m.

WEST BOUND.

No. 147, Daily, Henderson accommodation leaves Cloverport 6:00 a. m. stops at all way stations, arrives Henderson 8:25 a. m.

Train No. 141. Daily, fast mail and express leaves Cloverport 11:00 a. m., stops only at Hawesville, Lewisport, Maceo, Owensboro, Stanley, Henderson and Evansville, arrives St. Louis 7:50 p. m.

Train No. 143. Mail and Express daily, arrives Cloverport 7:48 p. m., Evansville 10:35 p. m. Stops at all stations.

No. 145, daily St. Louis fast train, leaves Cloverport 11:06, P. M. arrives Evansville 1:35 A. M. St. Louis 7:40 A. M. stops at Hawesville Owensboro and Henderson only.

Chair cars on trains 141, 142, 143, 144 between Louisville and Evansville. Tarough sleeping cars and free reclining chair cars on trains 145 and 146, between Louisville, Evansville and St. Louis.

**Fordsville Branch**

EAST BOUND.

Train No. 2, daily except Sunday, leaves Fordsville 6:00 a. m., arrives Irvington 9:40 a. m.

Train No. 4. Daily except Sunday leaves Fordsville 3:30 p. m., arrives Irvington 5:30 p. m.

Train No. 6. Sunday only.

Fordsville 7:00 a. m., Irvington 9:35 a. m.

WEST BOUND.

Train No. 3. Daily except Sunday leaves Irvington 11:10 a. m., arrives Fordsville 2:55 p. m.

Train No. 5, Daily, leaves Irvington 7:05 p. m; arrives Fordsville 10:15 p. m.